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ABSTRACT

Three studies comparing the respective roles of interlanguage universals and natural language transfer in determining learners' judgments of grammaticality used college students of French in their second, third, and fourth semesters as subjects. In the first experiment, the subjects were exposed to both grammatical and four types of ungrammatical stimuli sentences with basic. familiar vocabulary, and were asked to make nominal judgments of grammaticality based on three error types. In the second, the same subjects were given groups of sentences with similar error types and asked to rank them for grammaticality according to the same criteria. In the third experiment, another group of second-semester French students was given larger groups of sentences and asked to rank them for grammaticality. Overall, the results were consistent with previous research on other languages, but it is proposed that some of the results might be attributable to the property of additivity or to morphological features, and several situations were found that are not accounted for by the distinction interlanguage universal rule vs. transfer rule. In addition, possible factors in the judgment of error that could confound the findings are considered. The researcher is cautioned not to accept wholly the universal-transfer dichotomy, which may be a false dichotomy. (MSE)

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# UNIVERSALS VERSUS TRANSFER REVISITED

It is increasingly common to cite both transfer from native language structure and application of universal features of natural languages as determinants of interlinguistic form. How the two operate remains an area of theoretical controversy and empirical inquiry--witness the collection of papers edited by Gass and Selinker (1983) and the wealth of articles in recent numbers of LANGUAGE LEARNING.

The phenomenon of transfer has in the past few years regained a certain respectability among researchers in second language development. No longer viewed in simplistic behaviorist terms, transfer is seen as a complex set of fairly subtle cognitive operations which bear not only on the learner's output, but also on the way the learner actually thinks about the form of the target language relative to his native language. The new view of transfer is also sensitive to the ways in which individuals structure knowledge generally. Thus Schachter (1983) considers transfer as "the set of constraints that one's previous knowledge imposes on the domains from which to select hypotheses about the new data one is attending to" (104); in this view, there are presumably many types of transfer, and among them is transfer from the native language. (For simplicity's sake, however, "transfer" will be used hereafter in the traditional manner, i.e. in reference to transfer from the learner's native language.) Krashen (1983), drawing on the collective body of work in the area of transfer, posits a set of conditions on native language transfer which include learner's perception of the similarity of the TL to his NL as well as his perception of the markedness or language-specificity of the L1 candidate rule for transfer. Transfer is now regarded by many researchers as a dynamic process which should be examined diachronically; that is, evidence for transfer appears at some but not all stages of the learner's Interlanguage development. Differential application of transfer also extends to the components of linguistic performance: abstract features of NL phonology appear to be more likely candidates for long-term transfer than, say, certain morpho-syntactic features. (Broselow, 1982, 1983).

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Evidence for the presence of linguistic universals in Interlanguage performance is of several sorts. A number of researchers (mentioned in Gass 1984) have found that structures not permitted in natural language will also be impossible in Interlanguage. In addition, certain hierarchical, implicational, and pragmatic features of all natural languages appear to characterize Interlanguage performance. For example, the presence of marked features in natural language (e.g. nasality, subjunctive mood) implies the presence of unmarked counterparts (i.e. orality, indicative mood).

While it is comforting to know that Interlanguages share features with all other languages, it is becoming increasingly popular among researchers to look for structures occurring universally in all Interlanguages but not in all natural languages. This approach is exemplified in the work of Ioup and Kruse (1977), Tarallo and Myhill (1983), and Liceras (1983). All found a tendency among learners of various target languages and from varied backgrounds to accept as grammatical the use of resumptive pronouns (such as HIM in the sentence "There goes the boy that I saw HIM yesterday"). The Interlanguage use of or acceptance of resumptive pronouns holds even though they are a feature neither of the native language nor of the target language of the learners.

Production of this and other near-universal features is also observed in dynamic linguistic systems besides Interlanguage, such as first language acquisition and pidginization (see Andersen 1983, as well as Sharwood Smith 1983).

For the purposes of this paper, we will focus only on those so-called "universals" or "near-universals" previously identified as features of all INTERLANGUAGES, and will call them for convenience "Interlanguage Universals." Of particular interest to this study will be those Interlanguage Universals which are features neither of the native language nor of the target language of the learners.

The present study seeks to compare, on the basis of empirical evidence, the respective roles of IL universals and NL transfer in determining learners' judgments of grammaticality. This investigation is modeled, in many respects, on recent work by Tarallo and Myhill (1983) and Liceras (1983). In the Tarallo and Myhill study, native English speakers learning various L2's were asked to give grammaticality judgments of L2 sentences containing ill-formed and well-formed relative clauses. Their results showed that sentences containing resumptive pronouns (which are characteristic of many languages, but not of English) were accepted with high frequency, while sentences with relativizer deletion (an English-specific feature) were judged acceptable much less frequently. Mixed results were obtained for sentences with preposition stranding, depending on the nature of the L2.

Liceras also used a grammaticality judgment task to test for the presence of various phenomena in the Interlanguage

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competence of English native speakers learning Spanish. Her results suggest that marked features of the Native Language (in this case, preposition stranding) are not included in the Interlanguage of these subjects. However, resumptive pronouns emerge as acceptable features of their Interlanguage.

Though the present investigation replicates many of the features of the Liceras and Tarallo and Myhill studies, it offers seveal new wrinkles. First, the target language in this study is French, heretofore underrepresented in the transfer and universals literature. We are interested in comparing grammaticality judgments for this target language with those for other TL's, taking into account as well the subjects' proficiency level. Secondly, we incorporate a procedural modification by giving subjects explicit instructions about what kind of grammatical deviances they are to base their judgments upon. Specifically, they are told to look for WORDS OUT OF PLACE, MISSING WORDS, or TOO MANY WORDS. We reason that such a practice might help focus subjects' attention on only those areas where there actually are errors, thus eliminating the possibility of students' mistakenly identifying spurious morphological or orthographic errors. Third, we investigate the effect of the nature of the judgment task on grammaticality ratings. In this study, we compare judgment data from a nominal grammaticality task with data from rank-ordering tasks, in other words frequency of grammatical judgments for a given sentence type, compared with judgments of relative grammaticality. A final departure from earlier studies is the investigation of a new variable, Additivity. Informally stated, we would like to know in what ways grammaticality judgments are affected by the presence of more than one grammatical deviance per stimulus sentence. Moreover, we are interested in possible effects deriving from combinations of different TYPES of errors: for example, are sentences containing two transfer-type errors judged equally acceptable as sentences with a transfer-type error AND an Interlanguage Universals-type error?

Accordingly, we propose to examine four types of sentences. TYPE (1) are sentences with a single deviance reflecting IL-universal structure, here Resumptive Pronouns; TYPE (2) are sentences with a Native-language-specific (i.e. English-specific) structure, here Preposition Stranding; TYPE (3) are sentences with two deviances, one reflecting IL-universals, the other English-specific (here, with Resumptive Pronoun and Preposition Stranding); TYPE (4) are sentences with two deviances, both English-specific (here, Preposition Stranding and Relativizer Deletion). Following the example of previous studies, all errors mentioned occur in relative clase constructions.

Examples of the four types of deviant sentences under consideration appear in (1) below. Note that, with respect to the target language, these sentences deviate by having too few words, too many words, or words out of place. Note further that the category RESUMPTIVE + STRANDING does not strictly speaking strand the preposition once the RESUMPTIVE Pronoun fills the Object of Preposition slot; however, the syntax of this type of sentence deviates from grammatical French



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by placing the relativized prepositional phrase postverbally instead of preverbally, just as with simple stranding.

RESUMPTIVE: (IL universal)
*Il a cassé les lunettes dont il EN a besoin.
*He broke the glasses which he needs THEM.

STRANDING: (English-specific)
*Il a cassé les lunettes qu'il lit AVEC.
He broke the glasses that he reads with.

RESUMPTIVE + STRANDING: (IL + Engl)
*Il a cassé les lunettes qu'il lit AVEC ELLES.
*He broke the glasses that he reads with THEM.

STRANDING + DELETION OF RELATIVIZER: (2 English-specific)
*Il a cassé les lunettes / il lit AVEC.
He broke the glasses he reads with.

It is assumed that differential preference patterns for these types of sentences may be reasonably interpreted as reflecting learners' sensitivity to either Native language rules or IL-universal rules, or more precisely to those rules selected for investigation. Further illumination of the universals versus transfer issue is expected upon examination of the role of additivity.

EXPERIMENT I: Nominal Grammaticality Judgment Task

Subjects:

Thirty-four volunteers, all undergraduate students at the University of Texas, participated in the study. Of these subjects, twelve were in their second semester of French, twelve in their third semester, and ten in their fourth semester. All subjects were English native speakers and none had spent substantial time in a native French-speaking environment. Distribution of language competence, as measured by course grade, was approximately even among subjects in each level.

Method:

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Subjects were exposed to both grammatical and ungrammatical stimuli sentences, twenty-nine of each. Of this total of 58 test sentences, only twenty of the twenty-nine ungrammatical sentences were directly pertinent to this investigation. These twenty sentences appear in Appendix I; they are labelled according to the type of deviance exemplified.

Vocabulary used in the stimulus sentences was basic. To further guarantee familiarity with the vocabulary items, a comprehensive list of all words used in test items was given to subjects to examine before the test; glosses were supplied whenever subjects were uncertain of meanings.

Task:

In this Experiment, subjects were asked to perform nominal judgments of grammaticality.

Subjects were told that they were to be making grammaticality judgments of a set of French sentences, some of which were grammatically correct, some of which were grammatically faulty. For each sentence, subjects were told to circle on their answer sheet either the letter "G" for grammatical, or the letter "U" for ungrammatical.

Subjects were asked to base their judgments on three types of errors: (1) missing words (2) too many words (3) word or words out of place. They were told not to be concerned about any other type of errors, such as spelling or agreement.

Stimulus sentences reproduced on slides were presented to subjects in randomized order. A time limit of 15 seconds was imposed to provoke spontaneous responses. Subjects were given 3 minute breaks after each set of 15 sentences.

To avoid a possible learning effect due to order of presentation of stimuli, subjects were divided into four groups, and stimuli sentences were rerandomized for each group.

RESULTS

Returning to Appendix I, we see the 20 stimuli under consideration arranged in descending order by percentage of grammatical rating. The maximum possible rating is 1, indicating that all subjects rated the sentence as grammatical, while the minimum rating (0) would indicate that all subjects rated the stimulus sentence as ungrammatical.

Using a BMDP analysis of variance program, differences in rating of stimulus sentences were determined. Sentences were divided into five types: 20 Grammatical (all containing relative clauses) and 5 each of Resumptive, Resumptive + Stranding, Stranding, and Stranding + Deletion, as exemplified above. Subjects were assigned a score for each of the five types based on the mean grammaticality judgment for sentences of that type. Ratings "grammatical" were assigned a score of 1, while ratings "ungrammatical" were assigned 0's. Thus, a subject who rated all stimuli of a given type would receive a score of 1.0 for that type.

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A repeated measures analysis of variance using the BMDP program library was performed on the data. Means for each ungrammatical sentence type are shown in Table 1; mean ratings for the 20 grammatical sentences are included for comparison.

TABLE 1
Mean ratings by sentence type

| (GRAMMATICAL) | RES | R+S | S | S+D |
|---|---|---|---|---|
| (.7819) | .3397 | .1177 | .0588 | .0059 |

Referring to Table 1, we observe that sentences containing Resumptives are judged grammatical most often of all the ungrammatical types, followed by sentences containing Resumptives + Stranding, and sentences with Stranding only. Sentences containing both Stranding and Deletion were judged least grammatical.

The Greenhouse-Geisser test for differences among the five sentence types was highly significant ($F = 30.52$, $df = 3,93$, $p = .0000$), indicating that paired comparisons between the sentence types were appropriate. Six repeated measures analyses of variance, comparing each of the pairwise combinations of ungrammatical sentence type, were performed. The F-ratios for these analyses are reported in Table 2.

TABLE 2
F-ratios of paired comparisons by sentence type

| TYPE | RES | R+S | S | S+D |
|---|---|---|---|---|
| F-RATIOS | | | | |
| RES | | | | |
| R+S | (23.9 ***) | | | |
| S | 39.9 *** | (3.32 NS) | | |
| S+D | 56.4 *** | 14.76 *** | (7.77 **) | |

F-ratios which are significantly different are conventionally coded with asterisks. Of particular interest are the F's that are circled. These are ratios reflecting the comparison of the sentence type judged grammatical most often with the sentence type judged grammatical next most often, and so on. Thus we see that the mean grammaticality rating for Resumptive type sentences is



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significantly higher than that for the next best type, Resumptive + Stranding. However, there is no significant difference between the second and third places, namely sentences with Resumptive + Stranding and Stranding alone. Between the third and fourth places, though, there is a significant difference, as sentences with Stranding + Deletion are judged less grammatical than those with Stranding Only.

In order to assess the effect of level of proficiency on grammaticality judgments, a 3 X 4 analysis of variance was performed with subjects classified by three levels of proficiency (the between-subject variable) judging the 4 types of ungrammatical sentences (the within-subject variable). Table 3 presents the results of this analysis.

TABLE 3
Mean rating by proficiency level

| LEVEL | 1 (2nd semester) | 2 (3rd semester) | 3 (4th semester) |
|---|---|---|---|
| TYPE | | | |
| RES | .3833 | .3167 | .3000 |
| R+S | .1833 | .0500 | .1200 |
| S | .0833 | .0167 | .0800 |
| S+D | .0167 | .0000 | .0000 |

Surprisingly, the variable of Proficiency Level generated no significant differences in grammaticality judgments in this task, $F(2, 31) = 1.31$, $p = .2851$. Nor were there found to be any TYPE X Level interactions. We do observe, though, that judgments of 3rd semester students are more accurate than those of 2nd semester students. However, judgments of 4th semester students are about the same as those of the 2nd semester students. These unexpected patternings may warrant future investigation.

Thus on the basis of the nominal judgment data overall, we conclude that there is evidence for differential sensitivity in Interlanguage competence to the IL universal and Transfer rules exemplified; specifically, that Resumptive Pronoun structures are accepted with significantly more frequency than Preposition Stranding.

Furthermore, there is some support for the hypothetical principle of additivity, as items with Stranding + Deletion are judged grammatical much less often than items with Stranding alone, and similarly for the comparison Resumptives versus Resumptive + Stranding. However, Additivity does not apply uniformly,



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as sentences containing the dual errors Resumptives + Stranding are judged grammatical significantly more often than sentences with Stranding + Deletion. Moreover, the category Resumptives + Stranding is not significantly different from the category Stranding only.

Thus, far from "transferring" rules from the native language to this task, subjects appear to reject rules characteristic of their mother tongue. On the other hand, they appear to accept more often a rule which applies neither to their native language nor to the target language.

## EXPERIMENT II

Experiment II was designed to elicit judgment data of a different nature than Experiment I, namely rank-ordering data.

In Experiment II, subjects from Experiment I were presented with 3 cards in succession, each card displaying 4 French sentences. Three of the sentences on each card were ungrammatical. To disguise the purpose of the experiment, two of the cards were distractors not pertinent to the analysis. On the pertinent card was one Grammatical sentence, one constructed with a Resumptive pronoun, one with Stranding, and one with Stranding + Deletion. None of the sentences in this task was identical to stimulus sentences in Experiment I, though all were framed with relative clauses.

Subjects in Experiment II were asked to rank sentences from most to least grammatical, most grammatical receiving 1 and least grammatical receiving 4. Once again, they were given the criteria TOO MANY WORDS, TOO FEW WORDS, and WORDS OUT OF PLACE. Subjects were allowed 1 minute and 15 seconds to produce rankings on each card. The sentences from this task appear, along with mean rank order judgments, in Table 4.

TABLE 4
Mean rank order judgments
from 1 (most grammatical) to 4 (least grammatical)

| | | |
|---|---|---|
| G | Je cherche la fourchette avec laquelle le bébé mange<br>I'm looking for the fork with which the baby eats | 1.2941 |
| R | * Vous avez trouvé les livres dont il en a besoin<br>* You found the books that he needs them<br>(lit: You found the books of which he of them has need) | 1.9706 |
| S | * J'aime l'appartement que tu habites dans<br>I like the apartment that you live in | 3.1765 |

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S+D * Je veux le crayon j'écris avec 3.6176
I want the pencil I write with

Analysis of variance reveals significant differences between the means of each sentence type. The least robust difference is between Stranding and Stranding + Deletion, $p < .04$.

From these data, it appears once again that subjects employ a judgment algorithm which favors the IL universal rule of Resumptive Pronouns to NL transfer rules of Stranding and Stranding + Deletion.

While such corroborating evidence is encouraging, we felt that a third Experiment was warranted for two reasons. First, we wanted to obtain more data on the workings of the principle of additivity. Specifically, we wanted to re-compare judgment data for sentences with an IL universal + a transfer structure with data from sentences with one transfer-type structure and with two transfer-type structures.
Secondly, in the first two experiments, stimuli sentences exemplifying Stranding and Resumptives + Stranding employed a variety of relativizers. We felt it was desirable to know whether, despite our instructions to the contrary, subjects were sensitive to the morphology of the relative pronoun. We were alerted to possibility of such a confounding factor by consideration of pairs such as in (2 a, b ).

( 2 ) a. * Je vois le garçon QUE tu as joué avec (lui).
b. * Je vois le garçon QUI tu as joué avec (lui).
c. Je vois le garçon avec qui tu as joué ... OR:
d. Je vois le garçon avec lequel tu as joué

(a,b) I see the boy that you played with *(him).
(c,d) I see the boy with whom you played.

Normally, the relativizer in the oblique case is QUE, as in (3):

(3) Je vois le garçon QUE tu aimes bien.
I see the boy (Ø, that, whom) you like.

The morphology of the relative is not sensitive to the feature + or - ANIMATE of the noun to which it attaches. However, recalling ( 2 c.), in relative clauses involving Prepositional phrases, Native Speakers of French may optionally use QUI when the noun referred to is + ANIMATE. From teaching experience, we were aware of the problems students have with these types of relativization and were eager to determine whether differences

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in grammaticality judgments would obtain between minimal sentences like (2 a. and 2 b.).

## EXPERIMENT III

Experiment III involved a new group of twelve volunteer subjects, all studying second-semester French at the University of Texas.

As in Experiment II, subjects were asked to rank sentences from most to least grammatical. This time they were given three sets of five sentences, one set being distractors. The pertinent sentences, which appear in Appendix II, exemplified Grammatical, Resumptive, Resumptive + Stranding, Stranding alone, and Stranding + Deletion types.

Subjects were told to look only for errors involving words out of place, too many words, or too few words, and were given 1 and 1/2 minutes to perform rankings for each set of five sentences.

To help ensure comparability with Experiment II, subjects were exposed to about 12 of the sentences from Experiment I I before they performed their rankings.

## RESULTS

Mean rankings for each sentence appear in Table 5. Rankings range from 1 (most grammatical) to 5 (least grammatical).

TABLE 5
Mean rankings by sentence type

| TYPE | REL I | REL II | GRAND MEANS |
|---|---|---|---|
| GRAM | 1.3333 | 1.9167 | 1.6250 |
| RES | 2.1667 | 1.9167 | 2.0417 |
| R+S | 3.9167 (que) | 4.3333 (qui) | 4.1250 |
| S | 3.4167 (lequel) | 2.7500 (que) | 3.0833 |
| S+D | 4.1667 | 4.0833 | 4.1250 |

An eyeball horizontal comparison of the means in the first two columns suggests that there are differences, yet no cross-column comparison yields a significant difference. Thus, in horizontal comparisons, at least, there appears to be no effect of morphology of relativizer.

Vertical comparisons within each column do reveal significant

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differences, however. Table 6 displays significance levels in two-tailed analysis of variance.

TABLE 6
Significance levels in vertical comparisons (refer to Table 5)

(REL I)

| TYPE | GRAM | RES | R+S | S | S+D |
|---|---|---|---|---|---|
| GRAM | | | | | |
| RES | .1460 | | | | |
| R+S | .0063 | .0386 | | | |
| S | .0005 | .0386 | .1460 | | |
| S+D | .0005 | .0063 | .7744 | .3877 | |

(REL II)

| TYPE | GRAM | RES | R+S | S | S+D |
|---|---|---|---|---|---|
| GRAM | | | | | |
| RES | .7774 | | | | |
| R+S | .0063 | .0386 | | | |
| S | .0386 | .3877 | .0063 | | |
| S+D | .0063 | .0005 | .3877 | .0386 | |

(REL I & II)

| | GRAM | RES | R+S | S | S+D |
|---|---|---|---|---|---|
| GRAM | | | | | |
| RES | .5078 | | | | |
| R+S | .0063 | .0063 | | | |

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| | | | | |
|---|---|---|---|---|
| S | .0117 | .0391 | .1094 | |
| S+D | .0005 | .0005 | 1.0000 | .0215 |

Synopsis of vertical comparisons

| | REL I | REL II | REL I & II |
|---|---|---|---|
| RES / R+S | .0386 | .0386 | .0063 |
| R+S / S | .1460 | .0063 | .1094 |
| RES / S | .0386 | .3877 | .0391 |
| S+D / S | .3877 | .0386 | .0215 |
| R+S / S+D | .7744 | .3877 | 1.0000 |

In the Synopsis of Vertical comparisons in Table 6 we see only one uniform significant difference, that obtaining between Resumptives + Stranding and Resumptive alone. Overall, with respect to the categories where we manipulated the relativizer, namely the R+S and the S, the results of this experiment are not entirely in keeping with those of Experiments I and II, leading us to suspect the confounding role of Morphology of Relativizer in these sentence types.

Furthermore, the relationships found in the earlier experiments with respect to additivity are not maintained in these data.



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## CONCLUSIONS

Data from the three experiments considered overall offer several insights into the workings of IL Universals and Transfer.

(1) Overall, the findings of earlier studies are consonant with the present study which considers a new target language, French.

(2) The variable, proficiency level, does not generate linear effects in grammaticality judgments.

(3) In grammaticality judgments, whether nominal or scalar, subjects are more likely to be sensitive to the IL universal rule of Resumptive Pronouns than to transfer rules of Preposition Stranding and Relativizer Deletion.

But here the resemblance to earlier studies ends. Differential sentitivity to structural sequences may be attributable to the distinction Universals versus Transfer, but also to the property of Additivity and to morphological features, and possibly to interactions of the two. Clearly, there is a need for future studies involving larger groups of subjects and more minimal comparisons between stimuli types.

There is also a need to bear in mind a few things that the distinction IL universal rule vs. Transfer rule doesn't account for. First, regarding the judgments for RES + STR, if this category is considered as an example of one type of resumptive, then the disparity between it and the other resumptive exemplified cannot be accounted for unless one has recourse to certain hypothetical constructs. One construct would allow for differences in kind between various resumptive structures; it would follow then that there are differences in kind between varieties of "IL Universals". This nuance is not obvious in the simple dichotomy IL Universal vs. Transfer. A second reasonable construct is that the principle of additivity does affect (though in somewhat mysterious ways) judgments of this and possibly many other types of deviant sentences. Here again, the dichotomy Universal vs. Transfer doesn't take this into account.

Another area where the Universal vs. Transfer dichotomy falls short is apparent when we examine the results of varying the Morphology of the Relativizer. Neither IL universal nor transfer type rules can deal directly with subjects' sensitivity to our varying this formal feature.

Finally our perspectives on Universals and Transfer must take into account the nature of the data. We are not the first to caution that metalinguistic judgments such as in our study are not necessarily to be equated with production data. Just because all our 3rd semester subjects judged Stranding + Deletion as ungrammatical doesn't mean they won't produce such sentences on compositions or in conversations. Just because subjects knew what a grammatical sentence looks like 79% of the time doesn't mean that they will produce grammatical


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sentences 79% of the time.

What is more, a significant element in the task of judging sentence grammaticality is the detectability of given types of errors. It is not clear whether certain types of elements stand out because they are perceived by the learner as "marked" (or even marginal) in the native language, or because students have been alerted to them in class. Detectability when more than one error is involved becomes an even stickier issue. Do lower judgments result from perception of the multiplicity of errors (the more errors there are, the less grammatical the sentence)? Do some types of errors obscure, or render less detectable, other errors within a given sentence?

Adults' apprenticeship in a second language is acknowledged as a highly complex phenomenon. The cognitive predispositions involved in this learning are varied, idiosyncratic, and often elusive. It would be tempting to conclude, on the basis of subjects' acceptance of resumptives and rejection of stranding, that learners possess some kind of core grammar which permits IL-universal structures and excludes NL-transfer type structures. This sort of conclusion would be compatible with diverse theoretical frameworks. For example, along the lines of Extended Standard Theory, one could claim that learners fill in categories that may be empty in their native language; a markedness argument might maintain that marked structures are not acceptable in Interlanguage; a pragmatic orientation might find evidence for learners' preference for semantic transparency or iconicity in grammar. However attractive any of these conclusions may seem, and however accurate they may ultimately prove to be, they are simply not warranted by the evidence of the present investigation. On the contrary, the results of this study suggest that future researchers should proceed with caution: caution in the selection of sentence types to be compared; caution in the leap from metalinguistic judgments to theories of Interlanguage grammar; caution when multiple errors are concerned; caution, in fact, when considering what may be a false dichotomy--Universals versus Transfer.

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## APPENDIX I

Deviant sentences used in nominal grammaticality judgment task with percentages of judgments "grammatical"

| TYPE | | PERCENT JUDGMENTS GRAMMATICAL |
|---|---|---|
| RES | Philippe a rencontré l'acteur dont j'ai vu tous ses films. | .5294 |
| RES | Vous allez voir le lac duquel elle en parle. | .3235 |
| RES | J'aime ce tissu duquel elle en fait cette robe. | .2941 |
| RES | Ses parents ont acheté ce bateau lequel il en rêve. | .2647 |
| RES | L'hôtel dans lequel j'y suis resté est élégant. | .2647 |
| R † S | La petite fille veut la poupée laquelle elle dort avec ça. | .2647 |
| R † S | Ils ont trouvé l'actrice dont ils ont besoin d'elle. | .1176 |
| S | Tu connais ce bâtiment lequel il sort de. | .0882 |
| R † S | Vous avez visité cette ville laquelle elle vient de là. | .0882 |
| S | Vous avez vu ce tissu dont elle a fait cette robe de. | .0588 |
| R † S | Elles ont trouvé la secrétaire qui François a besoin d'elle. | .0588 |
| R † S | Je connais l'homme qui tu as déjeuné avec lui. | .0588 |
| S | Son fiancé achète le diamant duquel elle rêve de. | .0294 |
| S | Marianne a écrit à son frère dont elle a vendu la voiture de. | .0294 |
| S † D | Vous êtes sorti avec la femme il rêve de. | .0294 |
| S † D | Vous avez quitté le pays vous venez de. | .0000 |
| S † D | Il a oublié ses lunettes il lit avec. | .0000 |
| S † D | J'ai rencontré les enfants tu as joué avec. | .0000 |
| S † D | Le sac j'ai trouvé mon stylo dans était sous le lit. | .0000 |

## APPENDIX II

Stimuli sentences from Experiment III with mean rank orderings (1-5)

| | | |
|---|---|---|
| GRAM | Vous avez vu le monument duquel il parle. | 1.3333 |
| | Je cherche la fourchette avec laquelle le bébé mange. | 1.9167 |
| RES | Le jambon est une viande dont nous en mangeons beaucoup. | 2.1667 |
| | Vous avez trouvé les livres dont il en a besoin | 1.9167 |
| R + S | Nous admirons l'étudiant que vous avez étudié avec lui. | 3.9167 |
| | Je connais l'homme qui tu as déjeuné avec lui. | 4.3333 |
| S | Tu connais ce bâtiment lequel il sort de. | 3.4167 |
| | J'aime l'appartement que tu habites dans. | 2.7500 |
| S + D | J'ai rencontré les enfants tu as joué avec. | 4.1667 |
| | Je veux le crayon j'écris avec. | 4.0833 |

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